

## GRAIN TRANSPORTATION REPORT

Transportation & Marketing, Agricultural Marketing Service United States Department of Agriculture

MARCH 20, 2003

TM GRAIN TRANSPORT COST INDICATORS	<u>Truck</u>	<u>Rail</u>	<u>Barge</u>	<u>Oo</u> Gulf	cean PNW
Indicator Value* for 03/20	117	100	97	135	140
Compared to Last Week	•	•	•	•	<b>1</b>
*Indicator: Base Year 2000=100: W.	eekly Undates	include Truck	=Diesel· Rail=	Nearby Sec	ondary Rail

\*Indicator: Base Year 2000=100; Weekly Updates include Truck=Diesel; Rail=Nearby Secondary Rai Market; Barge=Spot Illinois River Basis; Ocean Vessel based on Routes to Japan

Security at Agricultural Grain Facilities Increases. Security at U.S. grain elevators, stockyards, and food processors has begun to tighten as the war with Iraq gets underway. USDA has informed all employees in agriculture-related jobs to make an extra effort to assure that feed lots, stockyards, processing plants, and import and export storage facilities are safe. USDA has also asked farms, food plants, grain elevators, and other agriculture-related businesses to examine all vehicles that might enter their property. Security at agricultural research laboratories is also expected to tighten. According to Agriculture Secretary Veneman, no meaningful threats have been made to the U.S. food system to date. (<a href="www.grainnet.com.Yahoo.com">www.grainnet.com.Yahoo.com</a>, 3/18)

**ADM Closes Kansas Soybean Facility/Baltimore Export Facility.** Two weeks ago, Archer Daniels Midland (ADM) closed its soybean processing plant in Fredonia, KS. The closure of the facility, which has been in operation since 1928, is the result of the company's ongoing review of assets. The Fredonia plant, which had the capacity to crush 45,000 bushels of soybeans per day, is expected to transfer these operations to China and South America. In recent years, lower profits have been generated from domestic soybean meal due to increased foreign competition and a decrease in U.S. livestock production.

ADM also officially closed its grain export facility in Baltimore, MD, effective March 1. ADM began operation at the port's Pier 7 in 1996, through an easement conveyed by Countrymark Cooperative. However, on June 30, 2001, a portion of the ADM facility collapsed into the Inner Harbor, and controversy ensued over who would bear the financial responsibility for repairs. According to the Maryland Farm Bureau, State soybean farmers subsequently began to lose 20-25 cents per bushel for farmers close to the facility and nearly 50 cents per bushel for farmers in Montgomery County, farther west. These costs are directly related to transportation costs to alternative markets, such as trucking the grain to Perdue's export facility in Norfolk, VA. (<a href="www.admworld.com">www.admworld.com</a>, 3/4, <a href="www.americanfarm.com">www.americanfarm.com</a>, 4/30/02, <a href="mailto:Americanfarm.com">Americanfarm.com</a>, 4/30/02, <a href

Group Pushes for River Improvements. MARC 2000 (Midwest Area River Coalition), a group of agricultural, industrial, shipper, carrier, environmental, and government interests, is continuing its push for the modernization of the Midwestern River System, particularly the seven southernmost locks on the Illinois and Mississippi Rivers. According to MARC, the modernization is needed to maintain U.S. competitiveness with major markets such as Argentina, Brazil, and China. Argentina and Brazil have recently made significant investments in improving their inland waterway system and road infrastructure and, together, surpass the United States in soybean production. Statistics show that China devoted \$12.8 billion to the construction of ports, harbors, and inland waterways during 1996-2000. Dwain Ford, Illinois farmer and president of the American Soybean Association, states, "at the same time, our river system is beginning to get old and obsolete and in bad need of repair and expansion."

In addition to malfunctioning locks, the primary issue for U.S. inland waterways remains the need to expand locks from 600 to 1,200 feet. This would accommodate larger barge tows and avoid time wasted during double-locking. Double-locking, the process of dividing tows into two 600-foot units that will fit through the lock, can take as much as 90 minutes through each lock. The U.S. Army Corps of Engineers estimates the cost of such a overhaul to be \$1.2 billion over 20 years. (Reuters 2/28, Xinhua News Agency, www.xinhuanet.com 9/17/02,)

Report is prepared by Deen Olowolayemo, Hooshang Fazel, Johnny Hill and Karl Hacker, Agricultural Economists, Transportation & Marketing, Agricultural Marketing Service, USDA (202) 690-1304. Support provided by Upper Great Plains Transportation Institute, North Dakota State University. This report can be found on the Internet at www.ams.usda.gov/tmd/grain.htm. E-mail comments and questions to Surajudeen.Olowolayemo@usda.gov.

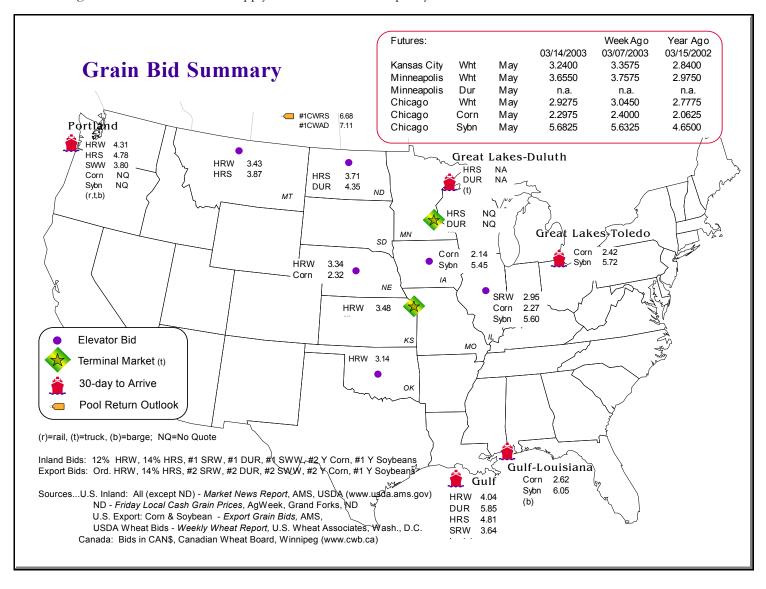
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The Grain Transportation Report is a weekly news source for grain logistics. Detailed data and trend information on five major modes: barge, truck, rail, container, and vessel, provide timely insight into grain transport. The report is offered to policymakers and industry as a tool in day-to-day decision making and longer-term strategic planning for an effective and efficient U.S. grain logistics system.

Market Update: U.S. Origins to Export Position Price Spreads (Per Bushel)								
Commodity	OriginDestination	This week	<u>Last week</u>					
Corn	IL Gulf	-0.35	-0.40					
Corn	NE Gulf	-0.30	-0.34					
Soybean	IA Gulf	-0.60	-0.65					
HRW	KS Gulf	-0.56	-0.44					
HRS	ND Portland	-1.07	-1.02					

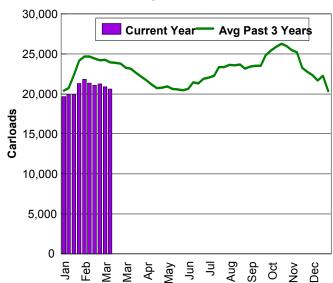
The **Grain Bid Summary** illustrates the market relationships for commodities. Positive and negative adjustments in differential between terminal and futures markets, and the relationship to inland market points, are indicators of changes in fundamental market supply and demand. The map may be used to monitor market and time differentials.



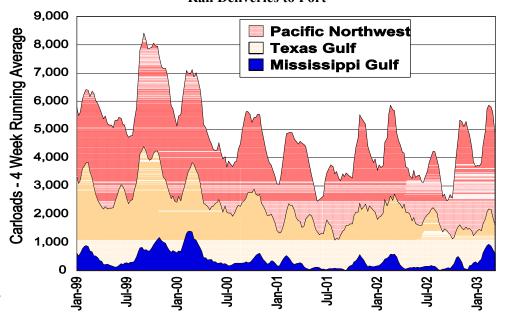
## **RAIL TRANSPORTATION**

Rail Deliverie	s to Port (C	Carload	s)		
	Mississippi Gulf*	Texas Gulf	Pacific Northwest	Atlantic & East Gulf	Total
Week Ending:					
02/26/03	467	849	4,021	393	5,730
03/05/03	398	824	2,579	236	4,037
YTD 2003	6,824	11,030	32,257	6,508	56,619
YTD 2002	4,496	19,514	24,602	7,846	56,458
% YTD 2002	152%	57%	131%	83%	100%
Total 2002	11,112	83,799	111,719	21,551	228,181
Total 2001	10,022	81,804	111,376	26,604	229,806
Source: Transport	ation & Marke	eting/AM	S/USDA; (*)	Incomplete Da	ıta

## Grain Car Loadings for Class I Railroads



#### **Rail Deliveries to Port**



Railroads originate approximately 40% of U.S. grain shipments. Trends in these loadings are indicative of market conditions and expectations.

Class I Rail Carrier Grain Car Bulletin (Grain Carloads Originated and Grain Service Index)

	East		West			IIC Total	Canada	
	CSXT	NS	BNSF	KCS	UP	U.S. Total	CN	CP
03/08/03	2,750	3,372	7,309	284	5,903	19,618	3,643	3,230
This Week Last Year	2,783	3,333	8,124	581	6,406	21,227	3,643	3,800
2003 YTD	29,241	32,186	78,315	3,868	65,693	209,303	32,953	32,495
2002 YTD	30,720	31,530	83,936	6,945	67,707	220,838	39,899	37,348
% of Last Year	95%	102%	93%	56%	97%	95%	83%	87%
2002 Total	142,760	164,745	400,179	27,161	344,296	1,079,141	191,835	195,765
U.S. Rail Covered Hopper	Cars Online In	dex*						

<u>Feb-03</u> 97.0 100.4 94.1 86.4 92.9 95.0

Source: Association of American Railroads; \*Base Year = 2001, Index based on Number of Covered Hopper Cars Online (available for Service).

Rail service may be ordered directly from the railroad via **Auction** for guaranteed service or tariff for non-guaranteed service, or through the secondary market. The **Secondary Rail Market** information reflects trade values for service that was originally purchased from the railroad carrier as some form of guaranteed freight. The auction and secondary rail values are indicators of rail service quality and demand/supply.

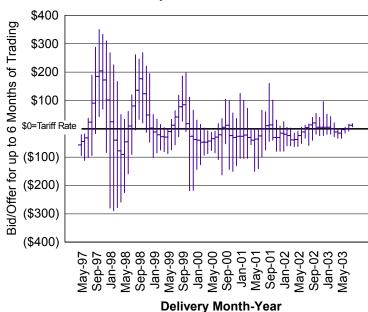
Railroad Car 'Auction' Results Average Premium/Discount to Tariff, \$/Car - Last Auction								
Delivery for:	Apr-03	May-03	Jun-03					
COT/N. Grain	\$0	no bid	no bid					
COT/S. Grain	no bid	no bid	no bid					
GCAS/Region 1	no bid	no bid	no bid					
GCAS/Region 2	no bid	no bid	no bid					

Source: Transportation & Marketing/AMS/USDA.

COT=Certificate of Transportation; GCAS=Grain Car Allocation System

Secondary Rail Car Market Average Premium/Discount to Tariff, \$/Car - Last Week								
	Delivery Period							
	Mar-03	Apr-03	May-03	Jun-03				
BNSF-GF	\$(9)	\$(12)	\$(16)	\$(9)				
UP-Pool	\$0	\$(18)	\$(24)	\$3				

## Secondary Rail Market Bid



## **Tariff Rail Rates for Unit Train Shipments**

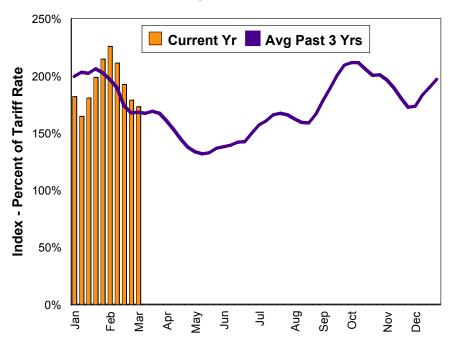
March 2003							
Date Effective	Tariff Item	Commodity	Origin	Destination	Rate Per Car	Rate Per MT	Rate/Per Bushel*
03/03/03	45560	Wheat	Minneapolis, MN	Houston, TX	\$2,050	\$22.60	\$0.62
03/03/03	43521	Wheat	Minneapolis, MN	Portland, OR	\$3,877	\$42.74	\$1.16
03/03/03	46540	Wheat	Kansas City, MO	Houston, TX	\$1,650	\$18.19	\$0.50
03/03/03	43586	Wheat	Kansas City, MO	Portland, OR	\$4,420	\$48.72	\$1.33
03/03/03	43581	Wheat	Omaha, NE	Portland, OR	\$4,005	\$44.15	\$1.20
03/03/03	31005	Corn	Minneapolis, MN	Portland, OR	\$3,050	\$33.62	\$0.85
03/03/03	31035	Corn	Kansas City, MO	Portland, OR	\$2,700	\$29.76	\$0.76
03/03/03	31005	Corn	Omaha, NE	Portland, OR	\$2,850	\$31.42	\$0.80
03/03/03	61110	Soybean	Minneapolis, MN	Portland, OR	\$3,030	\$33.40	\$0.91
03/03/03	61110	Soybean	Omaha, NE	Portland, OR	\$2,780	\$30.64	\$0.83

Source: www.bnsf.com

Approximate load per car = 100 tons: Corn 56 lbs/bu, Wheat & Soybeans 60 lbs/bu

#### **BARGE TRANSPORTATION**

#### Illinois River Barge Rate Index - Rate Quotes



The Illinois River Barge Rate Index averaged 183% of the Benchmark Tariff Rate between 1999 and 2001, based on weekly market quotes. The Index, along with Rate Quotes and Futures Market bids are indicators of grain transport supply and demand.

Calculating **Barge Rate** Per Ton: Index × 1976 Tariff Benchmark Rate per Ton

Select applicable index from market quotes included in tables on this page. The 1976 benchmark rates per ton are provided in map below.

BARGE RATE ( Index=Percent of T				
	3/13/03	3/5/03	April '03	June '03
Twin Cities	nq	nq	207	199
Mid-Mississippi	nq	nq	182	168
Illinois River	189	182	166	158
St. Louis	139	141	139	134
Lower Ohio	134	128	134	139
Cairo-Memphis	123	109	123	128
Source: Transportation	on & Marketing	/AMS/USD	A	

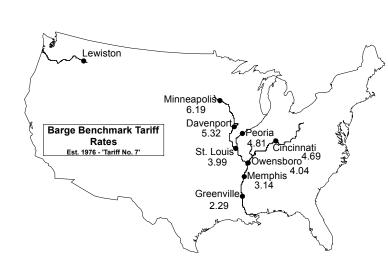
## BARGE FUTURES MARKET

Southbound Barge Freight Nominal/Cash Basis Values

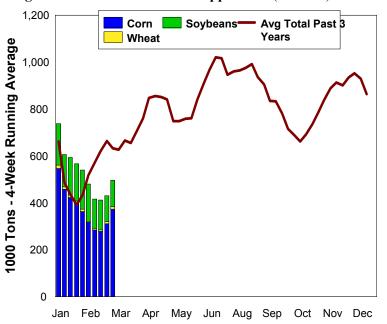
Index=Percent of Tariff, Based on 1976 Tariff Benchmark Rate

		Contract	Rate		
Week ended	River/Region	Period Period	Futures	Cash	
3/18/03	St. Louis	Apr	n/a	145	
		Jun	n/a	148	
		Aug	n/a	160	
		Oct	n/a	200	
		Nov	n/a	170	
	Illinois River	Apr	n/a	170	
		Jun	n/a	160	
		Aug	n/a	175	
		Oct	n/a	220	
		Nov	n/a	183	

Source: St. Louis Merchants Exchange



### Barge Movements on the Mississippi River (Lock 27)

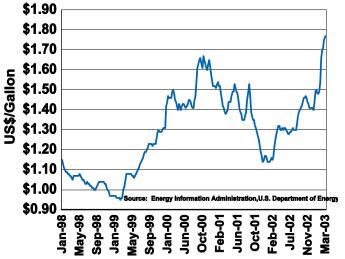


	<b>Corn</b>	Wht	<b>Sybn</b>	<b>Total</b>
Mississippi River				
Rock Island, IL (L15)	0	0	0	0
Winfield, MO (L25)	0	0	0	0
Alton, IL (L26)	527	11	135	674
Granite City, IL (L27)	507	16	132	656
Illinois River (L8)	493	11	112	616
Ohio River (L52)	27	7	48	95
Arkansas River (L1)	0	24	8	32
2003 YTD	4,300	370	2,340	7,282
2002 YTD	5,621	359	2,240	8,678
% of 2002 YTD	76%	103%	104%	84%
Total 2001	31,878	2,679	10,616	47,091

YTD and Calendar year total includes Miss/27, Ohio/52 and Ark/1.

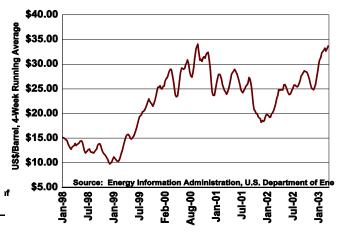
#### TRUCK TRANSPORTATION

# Weekly U.S. Retail Road Diesel Price



The weekly **Diesel Price** provides a proxy for trends in U.S truck rates. Diesel fuel is a significant expense for truck grain movements, accounting for 37% of the estimated variable cost. **Crude Oil Price** is an indicator in future diesel price trends.

#### Weekly Brent Crude Price, Friday Close



Crude Oil Prices (03/18/03)This WeekLast WeekUS\$ per BarrelThis WeekLast WeekLight Sweet Crude (NYMEX)29.7834.83Brent Crude28.4433.79

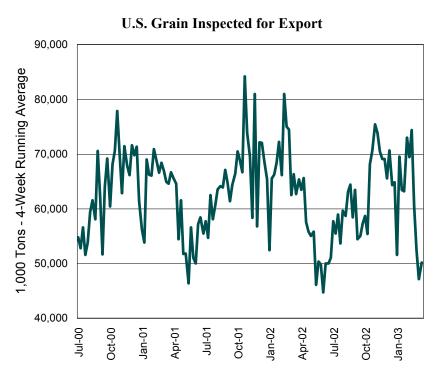
Note: Light Sweet Crude is exchanged on the New York Mercantile Exchange. North Sea oil has a "benchmark" role in crude oil pricing. Brent crude, a blend of North Sea oils, is traded on the International Petroleum Exchange in London.

Source: www.eia.doe.gov; \*U.S. Refiner Crude Acquisition Cost, Composite Domestic & Import

## **GRAIN EXPORTS**

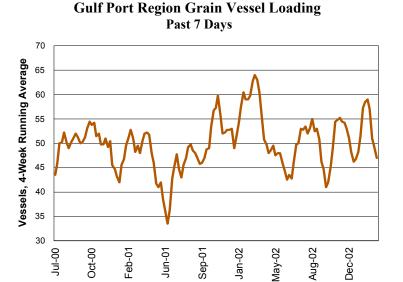
			Wh	eat			Corn	Soybean	Total
	HRW	SRW	HRS	SWW	DUR	ΑII			
03/06/2003	1,462	418	1,125	553	160	3,258	5,869	3,667	12,794
This Week Year Ago	1,266	710	744	382	129	3,231	7,338	3,610	14,179
Cumulative Exports-Cr	op Year								
02/03 YTD	5,597	2,315	5,084	2,756	567	16,319	20,444	21,694	58,457
01/02 YTD	6,538	4,285	4,280	2,569	994	18,666	22,704	17,713	59,083
01/02 Total	8,761	5,485	5,582	3,175	1,133	24,135	48,003	29,926	102,064
00/01 Total	9,314	4,445	5,775	5,156	1,130	25,819	47,734	27,567	101,120
99/00 Total	10,629	4,195	5,590	4,055	984	25,453	48,760	26,972	101,185

Select U.S. Port Regions - Grain Inspections for Export (1,000 Metric Tons)												
	Pacific Region		Mississippi Gulf		Texas Gulf		Port Region Total					
	Wheat	Corn	Soybn	Wheat	Corn	Soybn	Wheat	Corn	Soybn	Pacific	Mississippi	Texas
03/13/03	194	122	83	83	557	421	53	0	0	398	1,061	53
2003 YTD	1,562	1,158	1,507	1,070	5,842	7,413	873	8	11	4,227	14,326	892
2002 YTD	2,015	1,179	904	1,364	7,601	6,679	1,228	20	197	4,098	15,644	1,445
% of 2002 YTD	78%	98%	167%	78%	77%	111%	71%	41%	6%	103%	92%	62%
2002 Total	10,007	5,877	1,639	6,829	34,991	17,996	6,971	468	468	17,523	59,816	7,906
Source: Federal Grain Inspection Service				YTD-Y	ear-to-Da	ate						

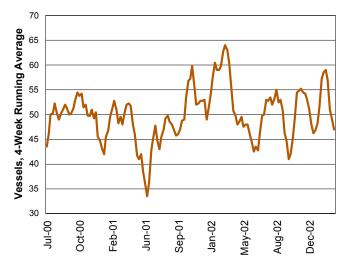


<b>Select Canadian Port Export Inspections</b> 1,000 Metric Tons, Week End Summary						
02/13/2003 Vancouver	Wheat	<u>Durum</u>	Barley 17			
Prince Rupert	54					
Prairie Direct	2		2			
Thunder Bay						
St. Lawrence	2,723	1,495	203			
2001/02 YTD	7,275	1,766	534			
2002/03 YTD	2,779	1,495	222			
% of Last						
Year	262%	118%	241%			
Source: Canadian Grains Commission, Crop Year 8/1-7/31						

Port Region Ocean Grain Vessels								
	Gulf			Pacific Northwest	Vancouver B.C.			
	Loaded Due Next							
	In Port	7-Days	10-Days	In Port	In Port			
03/06/03	47	48	48	8	3			
03/13/03	31	46	53	11	2			
2002								
Range	(1555)	(3366)	(4482)	(315)	(012)			
2002 Avg	35	51	65	8	5			
Source: Transportation & Marketing /AMS/ USDA								



#### **Grain Vessel Rates to Japan**



					%
2002	2001	%	2002	2001	Chang
4 <sup>rd</sup> Qtr	4 <sup>rd</sup> Qtr	Change	4 <sup>rd</sup> Qtr	4 <sup>rd</sup> Qtr	e
Gulf to			Pacific NW to		
Japan \$24.75	\$16.25	52%	Japan \$15.39	\$9.64	60%
Mexico \$7.50	-	-			
N. Europe \$18.07	\$11.73	54%	Argentina/Brazil to	)	
N. Africa \$18.33	\$16.98	8%	Med. Sea \$22.00	-	-
Med. Sea	\$10.58	-	N. Europe \$22.63	\$15.72	44%

Ocean Freight Rates for Selected Shipments - week ending 3/15/03						
Export Region	Import Region	Grain	Month	Volume Loaded (Tons)	Freight Rate (\$Ton)	
U.S. Gulf	Angola	Corn	Mar. 5/20	12,720	\$117.28*	
U.S. Gulf	Tanzania	Corn	Spot	28,160	\$110.60*	
U.S. Gulf	Kenya	Wheat	Mar. 10/20	44,500	\$73.50*	
U.S. Gulf	Ghana	Wheat	Spot	10,260	\$38.00	
U.S. Gulf	Ethiopia	Wheat	Mar. 5/15	55,200	\$67.25*	
U.S. Gulf	Mozambique	Wheat	Mar. 20/30	17,000	\$139.98*	
PNW	Iran	Wheat	Mar 18/30	20,000	\$45.40op\$46.15*	
Houston	Ethiopia	Wheat	Mar. 5/15	53,200	\$67.25*	

Source: Maritime Research Inc.

Rates shown are for metric ton (2,204.62 lbs.=one metric ton), F.O.B., except where otherwise indicated; op=option

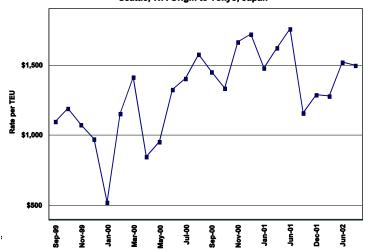
\*Most food aid from the United States is required to be shipped on U.S. flag vessels. The vessels are of limited availability resulting in higher rates. In addition, destinations receiving food aid generally lack adequate port unloading facilities, requiring the vessel to remain in port for a longer duration than normal.

## CONTAINER

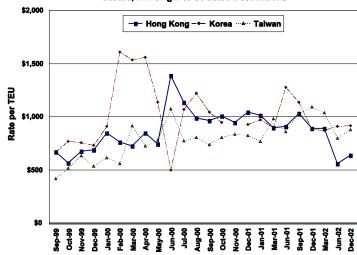
#### **Container Ocean Freight Rates**

Average Rate per TEU, Weighed by Shipping Line Market Share Source: Transportation & Marketing/AMS/USDA, Quarterly Updates

#### Container Rates - Soybeans Seattle, WA Origin to Tokyo, Japan



## Container Rates - Feed Grain Seattle, WA Origin to Selected Destinations



Approximately 420,000 MT of grain and oilseed exports were marketed via container in 2001. This volume increased 26% compared to 1997.